MICROBIOLOGY AND MOLECULAR BIOLOGY REVIEWS, June 1999, p. 265 Vol. 63, No. 2
1092-2172/99/$04.00+0


# A Paean to *Microbiology and Molecular Biology Reviews*

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*Microbiology and Molecular Biology Reviews* (MMBR), as all distinguished scientific publications of its sort, contains the living thoughts of fine scientists, their intimate relationship to their field, the pith of their experience. These reviews are not merely a collection of facts strung together.

Editors past and present must take pride in the objective aspects of the achievements of this journal. MMBR holds the distinction of having the most often quoted articles in microbiology (impact factor). This confirms what every one of its readers already knows: that this is an outstanding journal that publishes outstanding articles. However, readers know that MMBR is more than this. A spotty inquiry I made of a few people regarding their thoughts on this matter elicited a variety of responses. Some mentioned how useful a certain review had been for teaching a course, others said that it helped them understand the state of a field, and all agreed that the reviews were authoritative and well written. Often, I was told, the author or a review had succeeded in presenting a novel point of view, one that influenced the reader, even suggesting a new direction in research. Readers perceived that the purpose of the reviews is not so much to be exhaustive in coverage as to present a unified view of a field from a unique perspective. Several people mentioned that they often read old issues and that MMBR has a longer useful shelf life than any other journal in their field. A telling compliment was from a well-traveled colleague who said that the only old issues of journals he took with him to a new office were MMBR! Everyone agreed that reading MMBR is imperative. Small wonder that MMBR has been such a respected publication over the years and that it has continued to occupy center stage in the microbiological literature.

What motivates people to write for MMBR? Reviews are written on a personal level and represent an extreme boundary of the scientific genre. The emphasis here is not on raw information but on a higher level of intellectual discourse. The guidelines provided are usually quite broad, and authors are expected to modify and adapt them to individual tastes. Not only must review writers sift through the recent literature of a given topic, but they must assemble together disparate facts and reconcile seemingly contradictory results, and they are to do it in an organized and highly readable fashion. In addition, they are expected to contribute historical perspectives and to make guesses about future directions. The task is daunting, but the challenge often irresistible. What a chance to think through one's field and to tell the world about it! Of course, not everyone agrees to do it, but those who turn it down do so with a measure of regret.

The personal flavor of the reviews in this journal is easily illustrated by a few examples. As early as 1944, C. B. Van Niel presented a truly visionary view of microbial physiology which brought together biochemistry and higher cellular functions. In 1946, Maclyn McCarthy wrote one of the most forceful early presentations of DNA as the agent of genetic transformation. Even earlier, in 1941, Selman Waksman wrote a most authoritative review entitled "Antagonistic Relations of Microorganisms" which should be required reading for all involved in the search for new antimicrobials. For molecular biologists, the same can be said of a penetrating review of bacterial genetics written by Salvador Luria in 1947. Rene Dubos based his 1948 review "Cellular Structures Concerned in Parasitism" on a highly illustrative historical analysis. The redirection of host cell activities by bacteriophages was rendered intelligible by Seymour Cohen in 1949 and for animal viruses by Wilbur Ackerman in 1958. In 1949, Johansson and Sarles synthesized the arguments for the role of intestinal microorganisms in the nutrition of their host. In 1959, André Lwoff presented his views on the effects of temperature and pH on viral replication which led to his postulation that viral infections are a "three-body problem" (cell and virus, virus and organism, and organism and cell). David Baltimore in 1971 presented a unified view of the expression of viral genomes in a parsimonious diagram that has become the icon for the field. More recently, in 1979, Renato Dulbecco entitled his review "Contributions of Microbiology to Eucaryotic Cell Biology: New Directions for Microbiology," which turned out to be as challenging as it was prophetic. And so on. These are a few examples of the caliber of reviews that have graced this journal through the years. I expect that readers have their own favorites to add to this list. Those interested in the development of their science can do worse than go to the library and peruse old issues of *Bacteriological Reviews*, then *Microbiological Reviews*, and finally, MMBR. The mere presence of old issues of MMBR on the shelf of a library has the same pleasing effect of knowing that there is a fine arts museum in the vicinity, even if one does not visit it as assiduously as one should.

But what of today? It is reassuring to know that this journal is continuing its tradition of vigorous coverage and splendid writing while maintaining a personal flavor in its articles. As consumers of wisdom so appropriately delivered, we can only be thankful.

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